

IN THE SPECIFICATION

On page 17, amend paragraph [00041] to read as follows:

In addition, autostereoscopic projection viewer 10 can employ an image corrector plate 20 arranged at about the focal plane of a projected image, i.e., up to about 5 inches from the nearest field lens 24, (shown as a dashed rectangle), such as, for example, at least one Fresnel lens, more often a pair of Fresnel lenses 26, that can operate collectively as a field lens such that pairs of eye-zones, e.g., right and left off-axis eye-zones 28R, 28L and right and left substantially on-axis eye-zones 32R and 32L are capable of being produced at distances from the last surface of field lens 24 of at least about a diagonal measured value of the long axis of field lens 24 (i.e., at least about 15 inches). As another example arrangement, a zonal plate 27 can be configured to be separated from the field lens along the optical path or adapted to a predetermined surface of the field lens (e.g., a predetermined surface of a Fresnel lens) or a zonal plate can be adapted to a predetermined surface of or separately apart along the optical path from pair of Fresnel lenses 126 operating collectively as a field lens, so as to reduce dispersive effects of the system of Fig. 1.

On page 21 bridging page 22, amend paragraph [00049] to read as follows:

The example embodiment of Fig. 2 shows an optical axis, denoted as O, a pair of left and right substantially on-axis projection displays 102L, 102R, a pair of left and right substantially on-axis projector lenses 106L, 106R, a Fresnel prismatic beam-splitter 120 arranged at about the projected image plane of projector lenses 106L, 106R (i.e., a

magnified image from projector lenses 106L, 106R), an image corrector plate 122 capable of operating as an optical diffuser, and a field lens 124 (shown as a dashed rectangle), such as, for example, at least one Fresnel lens, more often a pair of Fresnel lenses 126, that can operate collectively as a field lens such that one or more pairs of eyezones, e.g., right and left off-axis eyezones 128R, 128L, 130R and 130L, and right and left substantially on-axis eye-zones 132R and 132L are capable of being produced at distances of at least about 8 inches (i.e., typically the diagonal of a field lens) from the last surface of field lens 124. However, as another embodiment, image corrector plate 122 can be removed from projection viewer 100 and longer field lens focal lengths can be utilized to constrain the angular views to between about 10 and about 15 degrees such that off-axis aberrations produced by Fresnel prismatic beam-splitter 120 are minimized. In addition, as another example arrangement, a zonal plate 127 can be separated from the field lens along the optical path or adapted to a predetermined surface of the field lens (e.g., a Fresnel lens) or a zonal plate 127 can be adapted to a predetermined surface of a pair of Fresnel lenses 126 operating collectively as a field lens or separately apart from such lenses along the optical path so as to reduce dispersive effects of the system of Fig. 2.

On page 25, after paragraph [00054], amend to read as follows:

Fig. 4(a) illustrates a folded geometry example of the present invention so as to enable compact arrangements of the optical elements as shown in Fig. 1 and Fig. 2. As shown in Fig. 4, a pair of turning mirrors 408L and 408R, can be adapted to

respectively receive images from a left projector 402L and a left projector lens 404L and a right projector 402R and a right projector lens 404R. Mirrors 408L and 408R accordingly direct the received illumination upward by a second arranged mirror 412, and then horizontally by a third mirror 414. Such illumination can then be received in the folded geometry of Fig. 4(a) by, for example, an image corrector plate 416 and a pair of fresnels 420, as discussed above and as shown in Fig. 1 and Fig. 2.

Figs. 4(b)-4(c) illustrate example projector lenses of the present invention having a square geometry. The method of providing a stereo image to a viewer requires that images differing in perspective are provided to each eye. Providing images of equal intensity to the right and left eye is required for best effect. It is desirable that the relative intensity of the two images remains the same independently of the position of the viewer's eyes within the eyezones. Circles of light can be projected images of circular projection lenses as reimaged by a predetermined Fresnel of the present invention. However, if square lenses are used for projection, the images of these lenses will be projected by the Fresnels as square images so as to produce square eyezones.

Fig. 4(b) shows a left 452L projector lens and a right 452R projector lens arranged as a pair of lenses having one or more predetermined sides (i.e., sides labeled 458) arranged in a square geometry and a predetermined side of each such lenses arranged with a circular geometry 456. Such a configuration of the left 452L and right 452R projector lens produces an optical relayed image having the geometry as shown in Fig. 4(b) to predetermined eyezones of the present invention, as shown in Fig. 1 and Fig. 2.

Fig. 4(c) illustrates another beneficial example of projector lenses of the present invention having a square geometry. Specifically, Fig. 4(c) shows a left 454L projector lens and a right 454R projector lens arranged as square lenses. The square type of geometric shapes of such projector lenses are thus capable of being optical relayed to predetermined eyezones so as to produce square eyezones.

The shape of the eyezones are thus the shape of the projection lenses utilized and expanded by the diffusing properties of a predetermined screen surface of the present invention, such as image corrector plate 20 as shown in Fig. 1. A diffuser's scatter of the present invention is largely vertical, providing zones large enough to allow vertical head movement and low horizontal scatter preventing light from the right and left fields from crossing into each other. Circular lenses used with vertical diffusers provide eyezones that are brighter in their center than on their edges causing brightness to vary when the viewer moves from side to side. If the spacing between the eyezones is not equal to the user's eye spacing, the changes in relative brightness of the images can be detrimental to perceived quality.

The dark spaces between projection lenses is increased when the lenses are round and diminished when the edges of the lenses are ground flat to allow only a narrow space to exist between the lenses. These changes also result in eyezones having a diminished space between projected images of the lenses. If the top and bottom of the lenses are also ground off squarely the brightness of the eyezone is more uniform when a user's head moves slightly side by side. The outer edges of the lenses may also be ground off square, such as edge 456 as shown in Fig. 4(b), to produce the lenses as

shown in Fig. 4(c), so as to enable for more than two projection lenses and to preserve the relative brightness for each eye.